



SBC28.4 &
XBZ 3/4...2"

2-position electric actuators with Ball valves **SBC28.4** **XBZ 3/4...2**

90° angle - Bidirectional rotation

Electric rotary actuators for three-port ball valves

- SBC28.4 Operating voltage AC 230 V
- 2-position control signal
- Nominal angle of rotation 90°
- For mounting on three-port ball valves

Application

For use in heating, ventilation and air conditioning systems to operate three-port ball valves, types XBZ 3/4" – 2"

Functions

If the actuator is driven by a 2-position signal from the controller, it generates a rotary motion, which is transferred to the valve.

Extending the actuator functions

Refer to the wiring diagram on the actuator cover and see also the "Commissioning" and "Connection diagram" sections in this data sheet.

Types

Type	Operating voltage	Type of control	Run-time for 90° at 50 Hz	Optional
SBC28.4	AC 230 V	2-position	90"	-

Mounting kits No mounting kits is required

Ordering

When ordering, please specify the quantity, product name and type code.

Example: 1 actuator, type SBC28.4 and 1 valve type XBZ1"

Delivery The actuator and ball valve are packed together and are not delivered fully assembled.

Compatibility

The table below shows which actuators may be used with which ball valves,

Valves	Nom. pressure [bar]	Actuator
		SBC28.4
		Nominal size
Two-port ball valves		
XBZ... (3/4"...2")	PN16	3/4"-1"-1 1/4" -1 1/2"- 2

Mechanical design

The electric actuators require no maintenance. They have a synchronous bidirectional motor and self-lubricating sintered gears contained in a plastic box.

The actuators supplied have a 90° angle of rotation suitable for the ball valves. During automatic operation, rotation is limited by two built-in end-switches.

Engineering

- Two-port ball valves see: data sheets 4831.2.
- Admissible ambient temperatures see "Technical data".

Electrical installation

The actuators must be electrically connected in accordance with local regulations and with the connection diagrams.



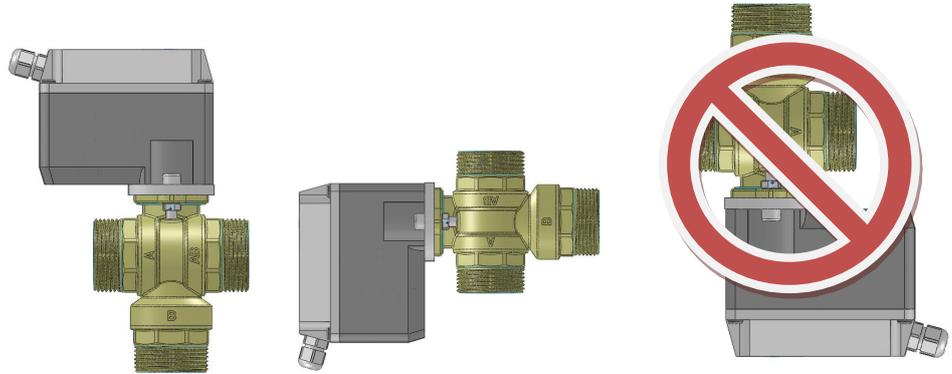
Regulations and requirements to ensure the safety of people and property must be observed at all times.

Mounting

Mounting instructions are printed on the box.

The valve and actuator can be assembled easily on site. There is no need for special tools or calibration.

Take care to install the valve the right way up. Refer to the mounting instructions for the valve concerned.



Orientation

<i>Allowed</i>	<i>Not allowed</i>
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Commissioning

When commissioning the complete motorised valve, consisting of actuator and ball valve, check the wiring and test the functions. This also applies to any additional components fitted.

Direction of rotation

Voltage at brown = ball valve CLOSED
Black connected at brown = ball valve OPEN

Maintenance

Warning

When servicing the valve and/or actuator: switch OFF the pump and power supply, close the main shut-off valve in the pipework, release pressure in the pipes and allow them to cool down completely.

If necessary, disconnect electrical connections from terminals.

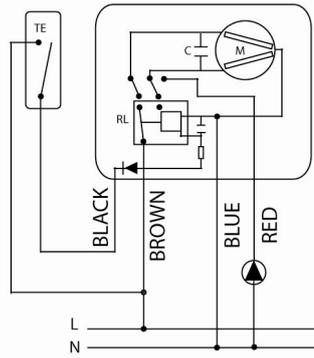
Warranty

The technical data given for these applications is valid only in conjunction with the Siemens valves (ball valves). The use of third-party valves other than those recommended by Siemens invalidates the warranty.

Technical data

Power supply	Operating voltage SBC28.4	AC 230 V	
	Frequency	50 / 60 Hz	
	Type of control	2-position	
	Absorbing power SBC28.4	At start 4 VA	In operation 3.6 VA
Operating data	Run-time for rotation through 90° SBC28.4	<u>at 50 Hz</u> 90"	<u>at 60 Hz</u> 85"
	Angle of rotation Factory setting	90° ± 2°	
	Torque: SBC28.4	<u>Max Working torque</u> 10 Nm	<u>Max torque</u> 14 Nm
Materials	End switch Switching capacity Switching differential	AC 250 V, 6 (2) A Approx. 1°	
	Reduction unit	Plastic / Sintered / Case-hardened steel	
Dimensions / Weight	Box	Plastic (Noril® - PC)	
	Dimensions	See "Dimensions"	
	Cable glands	M12 (4x)	
	Weight SBC28.4	600 gr.	
Ambient conditions	Max. admissible temperature of medium in assembled valve	110 °C	
	Operation	To IEC 60721-3-3	
	– Environmental conditions	Class 3K5	
	– Temperature	-5 ... +55 °C	
	– Humidity	5 ... 95 % rh	
	Transport	To IEC 60721-3-2	
– Environmental conditions	Class 1K3		
– Temperature	-20 ... +70 °C		
– Humidity	< 95 % rh		
Storage	To IEC 60721-3-1		
– Environmental conditions	Class 1K3		
– Temperature	-20 ... +70 °C		
– Humidity	0 ... 95 % rh		
Industry standards	Meets the requirements for CE marking in		
	EMC Directive	EN55014	
	Low Voltage Directive	EN60335/EN62233	
	Housing protection standard	IP54 to IEC529 / DIN40050	

SBC28.4



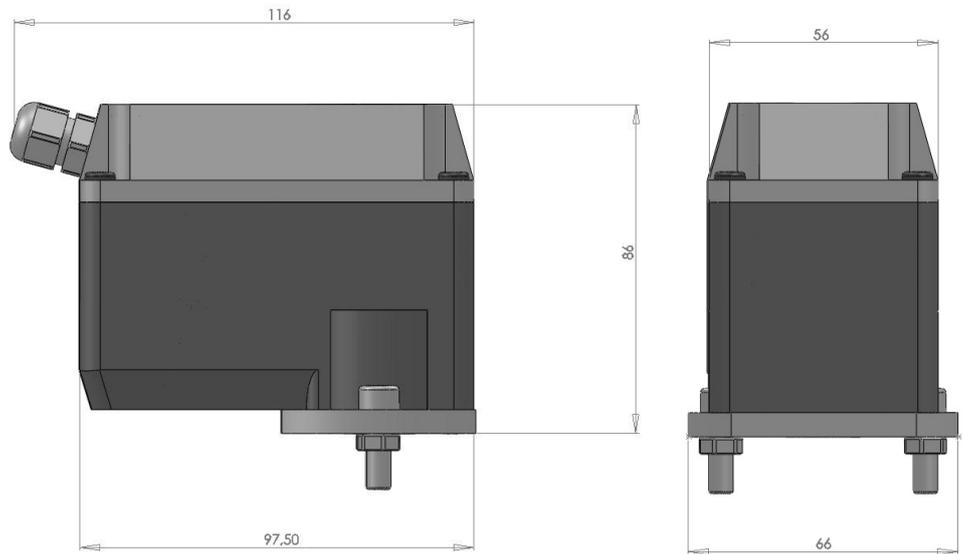
- L Operating voltage
- N Neutral conductor
- TE 2-position controller (thermostat)

The actuator don't need the ground wire because it is an Isolation Class II

Protection against the electric shock is guaranteed by the connection of metallic parts to the protection grounding circuit.

Dimensions

SBC 28.4



VBZ1/2-3/4-1-11/4 specifications

Specification

Installation: assembling in rigid pipework, for industrial, pneumatic and hydraulics installations, ecc.

Temperature range:

0°C /+ 95°C (110° max. 30 min)

Direction of flow:

as indicated

Working pressure:

PN 40 to 95°C / PN 16 to 110°C

Max. differential pressure:

8 bar

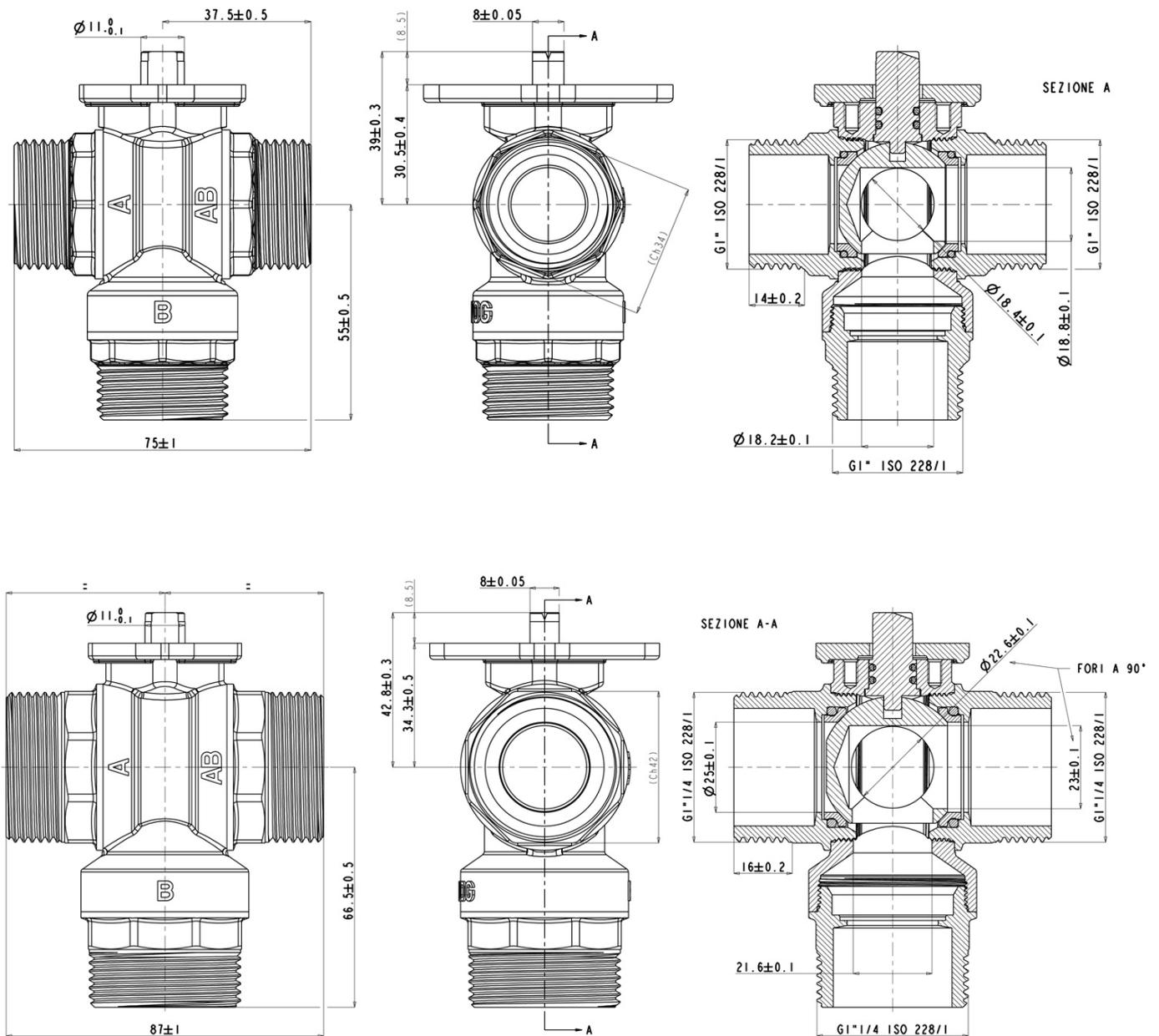
Torque:

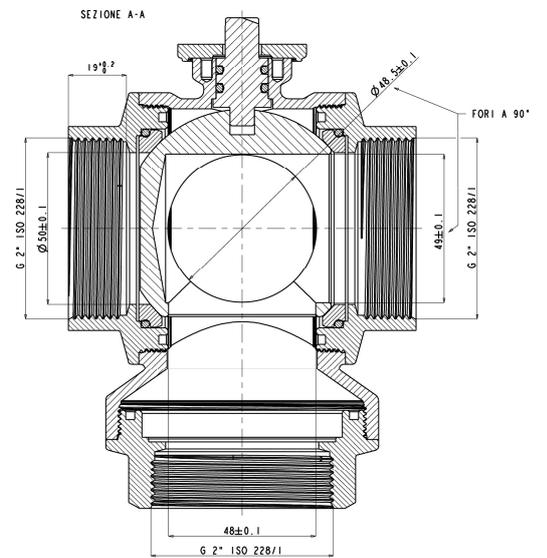
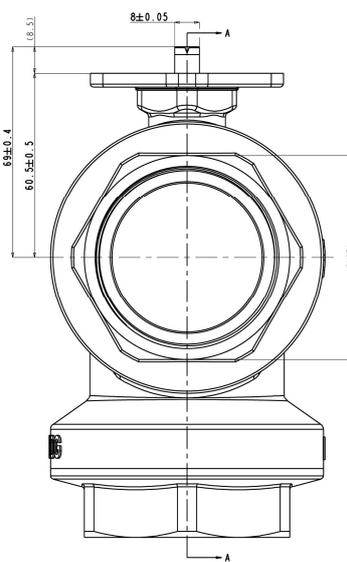
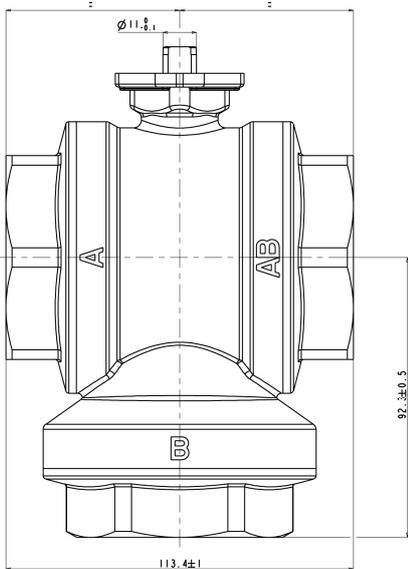
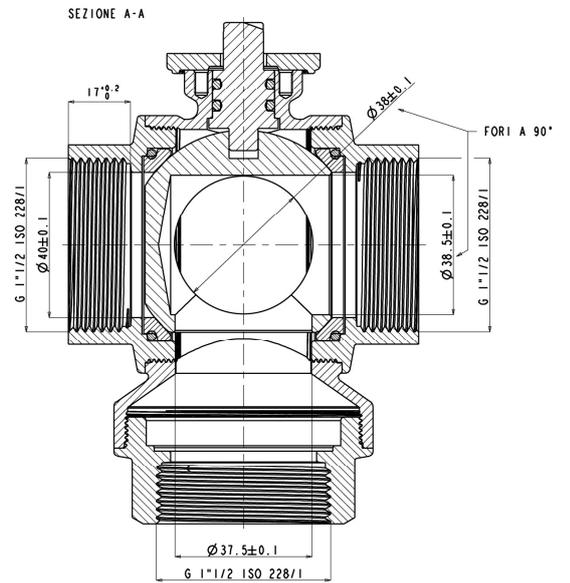
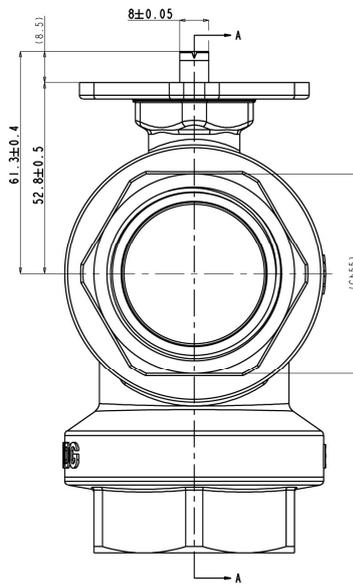
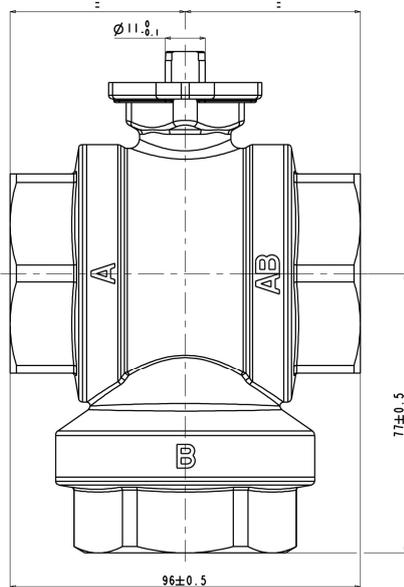
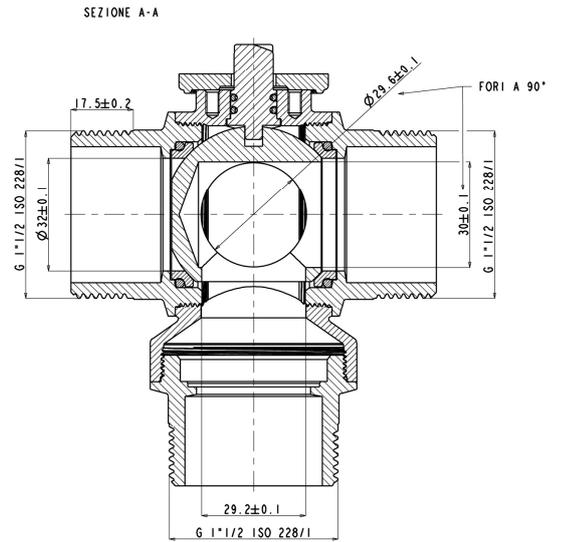
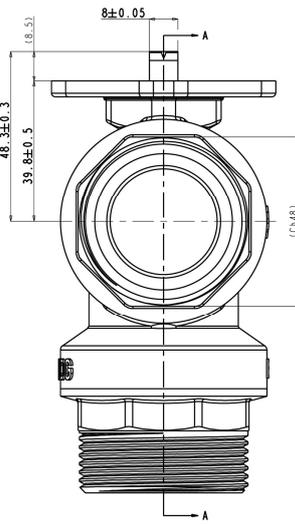
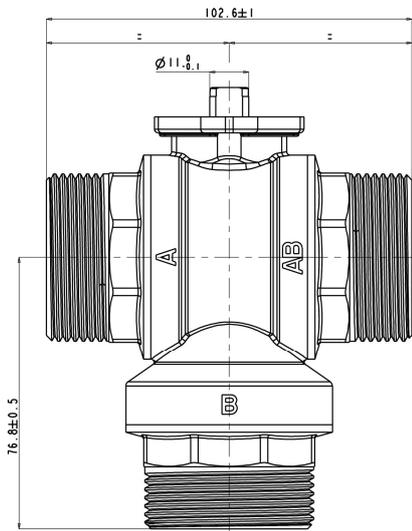
1 to 5 Nm

Thread ends:

Gas UNI ISO 228

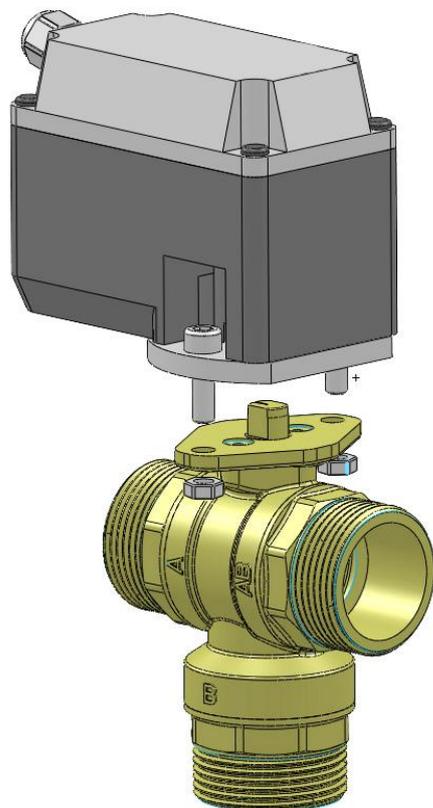
XBZ3/4-2 dimensions





SBC28.4 &
XBZ3/4...2

1.



2.

